

INTERNATIONAL SEARCH REPORT

International Classification No
PCT/JP2005/005069

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F02M55/02 F02M55/04 F02M69/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F02M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 03, 5 May 2003 (2003-05-05) -& JP 2002 339835 A (MARUYASU INDUSTRIES CO LTD), 27 November 2002 (2002-11-27) cited in the application abstract; figures	1
P,A	EP 1 445 475 A (DELPHI TECHNOLOGIES, INC) 11 August 2004 (2004-08-11) paragraph '0016! - paragraph '0025!; figures 8-10	1
A	PATENT ABSTRACTS OF JAPAN vol. 2002, no. 06, 4 June 2002 (2002-06-04) -& JP 2002 061552 A (SANOH INDUSTRIAL CO LTD), 28 February 2002 (2002-02-28) abstract; figures	1
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

25 May 2005

Date of mailing of the international search report

02/06/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 2003/106535 A1 (ZDROIK MICHAEL J ET AL) 12 June 2003 (2003-06-12) abstract; figure 5</p> <p>-----</p>	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2005/005069

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2002339835 A	27-11-2002	NONE	
EP 1445475 A	11-08-2004	US 2004144367 A1 EP 1445475 A1	29-07-2004 11-08-2004
JP 2002061552 A	28-02-2002	NONE	
US 2003106535 A1	12-06-2003	NONE	

VIII-2-1	<p>Declaration: Entitlement to apply for and be granted a patent</p> <p>Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate:</p> <p>Name (LAST, First)</p>	<p>in relation to this international application</p> <p>TOYOTA JIDOSHA KABUSHIKI KAISHA is entitled to apply for and be granted a patent by virtue of the following:</p>
VIII-2-1(i)		<p>TOYOTA JIDOSHA KABUSHIKI KAISHA is entitled as employer of the inventor, Hotta, Takashi</p>
VIII-2-1(x)	<p>This declaration is made for the purposes of:</p>	<p>all designations except the designation of the United States of America</p>